hypertrophy (LVH) is associated with adverse cardiovascular outcomes and overall mortality [5,7], and it is important to know the protective effects of different antihypertensive drugs [3,4]. The objective of this study was to test the influence of bisoprolol [1] and lercanidipine [2] on LVH in hypertensive patients in a 3 month therapy.
Material and methods: Bisoporolol 5-10 mg (n = 53) and lercanidipine 10-20 mg (n = 31) daily were used in patients with essential hypertension associated stable angina pectoris during 12-week in parallel-group study. Left ventricular (LV) parameters was measured by echocardiography. LV mass was calculate using ASE formula: LV mass (ASE) = 0.8 (1.04 ([LVIDD + PWTD + IVSTD]3-[LVIDD]3)) + 0,6 g [6].
Results: The reduction in systolic and diastolic blood pressure was comparable in the two treated groups. LV mass was decreased significantly in bisoprolol study group (from 251.4 ± 67.7 to 219.3 ± 55.8 g, p <0.01), whereas in lercanidipine group was no significant decrease in LV mass (from 232.9 ± 64.9 to 224.2 ± 51.84, p >0.05). Bisoprolol has absolutely effect on LV mass at 78.7% patients, lercanidipine at 66.7% patients.
Conclusion: The use of bisoprolol during 12 week at patients with essential hypertension associated stable angina pectoris more effectively decrease LV mass than lercanidipine.

Determinants of QT interval duration and QT variability in cardiac transplant recipients

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Aim: In general population, QT interval and QT variability are affected mainly by changes in ventricular repolarization and autonomic nervous system. Due to unique electrophysiology of the denervated heart, we sought to analyze the parameters that determine QT interval and QT variability in cardiac transplant recipients.
Methods: We involved 9 heart transplant patients who underwent implantation of a pacemaker that allows for intramyocardial ventricular evoked response (VER) measurement in a prospective study. We simultaneously made 3 consecutive 5-minute high resolution 12 lead ECG (HRECG) and VER measurements with the patients 1) having intrinsic heart rate, 2)having paced heart rate, 3) having the heart paced from the opposite electrode. To determine the influence of ventricular electrophysiological properties we used the length of paced QT interval and VER measurement, whereas to determine the influence of autonomic nervous system we used the markers of heart rate variability. We analyzed digitalized HRECG data by using ECG Segment Analyzer, and VER measurements were analyzed by the laboratory in Graz, Austria. The data was then statistically analyzed by using the Pearson correlation coefficient.
Results: The length of QT interval on HRECG correlates with VERV index (r = -0.51, P = 0.03), but not with heart rate variability (r = 0.14, P = 0.55). On the contrary, we found a significant association with QT variability and heart rate variability parameters (r = 0.83, P<0.001), but no correlation of QT variability with VERV index (r = 0.02, P = 0.94).
Conclusion: QT interval in cardiac transplant recipients appears to be a valid reflection of ventricular electrophysiological properties, while QT variability is influenced mainly by the changes in autonomic nervous tone. Therefore, by measuring QT interval and QT variability we can gain separate insight in ventricular electrophysiology and autonomic reinnervation of the transplanted allograft.

A study about lowering rate of left ventricular ejection fraction in patients with myocardial infarction, with and without Q wave

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Introduction: Acute myocardial infarction (AMI) is one of the most common causes of death of human beings in the world today. In our country, Iran, the coronary heart disease is the major cause of death, too. AMI can be classified in two groups: Q wave and non Q wave. In this survey, we attempted to study the lowering rate of left ventricular ejection fraction in these two groups of AMI .
Materials and Methods: This study was done in prospective and descriptive – analytic manner in a 2.5 years period in Ardabil Bouali Hospital in CCU ward. All of the patients who had come with chest pain and the AMI diagnosis was established for them were entered in the study.The diagnosis of AMI was proved by taking history and serial electrocardiograms and checking serum cardiac enzymes .The data of patients were inserted in special forms and then analyzed with SPSS soft ware .
Results: 600 patients were studied in this survey that 443 patients (73.83 %) were male and 157 patients (26.17 %) were female . The average age of patients was 59.90 years while it was 58.37 years in men and 64.22 years in wemon . 308 cases (51 . 33 %) of all of the patients had anterior AMI and 258 (43 %) had inferior,and the rest had mixed anterior and inferior AMI . Also 514 (85.6 %) of patients had Q wave and 86 (14.4 %) of patients had non Q wave AMI . The mean of left ventricular ejection fraction in patients was 45.52 %, while it was 46.22% in patients with Q wave AMI and 41.35% in patients with non Q wave AMI . *Conclusion:* As was mentioned above: 1) The male to female ratio in our patients was 2.8 to 1. 2) The mean age was significantly lower in men in comparement to women . 3) The anterior AMI was more common than of inferior AMI in our study . 4) The ratio of Q wave to non Q wave AMI was 6 to 1 in this study. 5) The lowering rate of mean left ventricular ejection fraction in patients with non Q wave AMI was more than patients with Q wave AMI , unexpectedly.